Vallejo In-Lieu Fee for VMT Reduction

Draft-Final Report

FEHR PEERS

October 2022

Prepared for:
City of Vallejo

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I. Introduction

The Vallejo In-Lieu Fee for Vehicle Miles of Travel (VMT) Reduction (In-Lieu Fee) is intended to provide the City of Vallejo and developers of land use projects in the city with a method of funding city infrastructure projects that will reduce the growth of VMT and contribute to safety and multimodal accessibility co-benefits in the city. The In-Lieu Fee is part of a two-pronged approach to reduce VMT in Vallejo, with the second part being a Parking and TDM Plan that describes measures developers can incorporate into new development projects to reduce VMT generation by encouraging the use of alternatives to the single-occupant vehicle. Together, the In-Lieu Fee and the Parking and TDM Plan (PTDM Plan) will fulfill the requirements for Connected Community Priority Development Areas (PDAs) set by the Metropolitan Transportation Commission (MTC). It is anticipated that these mechanisms will apply to all development in Vallejo (with limitations as outlined below) to maximize the benefits of a more multimodal transportation system that promotes a shift to more sustainable modes of travel.

Please see the PTDM Plan for more information on the Connected Community PDA program requirements and on Vallejo's VMT analysis guidelines and significance thresholds.

The following report is divided into the following sections.

II. Fee Structure and Application

III. Fee Capital Improvement Program

IV. VMT Reduction with Capital Improvement Program

V. Fee Calculation

VI. Monitoring and Reporting

II. Fee Structure and Application

In-Lieu Fee Definition

Local agencies may charge development impact fees pursuant to the *Mitigation Fee Act* (California Government Code §66000 et seq.) to finance the cost of public facilities or services needed to serve or mitigate the effects of development. Alternatively, agencies may establish "in-lieu" fee programs that provide a mechanism for applicants to offset their significant impacts through payment of a fee. There is no state statute outlining specific requirements for in-lieu fee programs; such programs are developed by agencies to promote the public welfare and satisfy regulatory requirements through compensatory mitigation mechanisms. The City of Vallejo proposes to establish an In-Lieu Fee for VMT Reduction that would fund facilities to promote the use of active travel modes thereby contributing to VMT reduction and associated public welfare benefits such as better public health due to greater walking and bicycling, more travel choices at lower costs, and less air pollution and greenhouse gas (GHG) emissions. Because this fee is proposed to be paid only by developments that cannot otherwise demonstrate compliance with the City's VMT thresholds, and because methods to establish a direct relationship between a development's VMT generation and the VMT reduction provided by the Fee-funded facilities have not been widely developed and tested within Vallejo, the City has developed this In-Lieu Fee using some of the concepts commonly applied in impact fees to help guide decisions about the program's structure. This document provides information about the purpose of the fee program, what types of projects will be funded through the program, what level of VMT reductions are anticipated, and how fee levels could be set for the different types of developments that are likely to occur in the City.

What Projects Would Pay the Fee

Development projects that meet the following criteria would pay the In-Lieu Fee to contribute towards the City's VMT and public welfare goals:

- Projects that:

    1) do not screen out from further VMT analysis as provided for in the *City of Vallejo CEQA Transportation Impact Analysis Guidelines* (October 2020) (TIA Guidelines), and

    2) are determined to generate VMT at a rate that exceeds the citywide average, using the methodology described in the TIA Guidelines, and

    3) are not able to apply site-specific strategies required per the PTDM Plan sufficient to reduce the project's VMT below the citywide average.

Fee Exemptions

Projects that are exempt from CEQA requirements would not pay the In-Lieu Fee, because these projects would not be subject to VMT impact analysis. The City may choose to exempt other development projects from the In-Lieu Fee based on unique project characteristics or project goals that provide other public welfare benefits that outweigh the benefits of VMT reduction. It is noted that development within the Downtown Ferry Terminal/Transit Center Transit Priority Area (TPA) would typically be expected to screen out from conducting VMT analysis (i.e., would be presumed to have a less-than-significant impact with respect to VMT), due to the level of transit service available in this area, as described in the TIA Guidelines. Therefore, projects located in the TPA would not pay the In-Lieu Fee.

III. Fee Capital Improvement Program

The VMT In-Lieu Fee will fund selected bicycle and pedestrian projects identified in the Solano County Active Transportation Plan (ATP). The selected projects are shown in **Table 1**. Projects were selected for inclusion in the In-Lieu Fee based on the following criteria:

- Bicycle projects ranked as high priority, near-term projects in the ATP that are located either in the downtown or on a Vallejo General Plan high-priority corridor, and that are not already funded and scheduled for implementation
- Pedestrian projects ranked as priority sidewalk gap closures in the ATP

The ATP provides planning level cost estimates for these projects, in 2020 dollars. The selected bicycle projects have a total estimated cost of $1,675,000. The selected pedestrian projects have a total estimated cost of $25,800,800. Because it would be infeasible to set the VMT fee at a level sufficient to fund the full cost of these projects, the In-Lieu Fee Capital Improvement Plan cost includes all of the bicycle projects and funding equivalent to 25 percent of the cost estimate (in 2020 dollars) for the pedestrian projects, for a total CIP program cost of $8,125,200. The City Public Works Department will allocate In-Lieu Fee funding to projects as part of its regular infrastructure planning and management activities. Projects may be prioritized based on coordination with roadway maintenance projects or other infrastructure projects, availability of grant funding, and other considerations. The In-Lieu Fee will thus facilitate earlier implementation of projects than might otherwise be possible.

Table 1: VMT In-Lieu Fee Capital Improvement Program

Corridor Name	From	To	Treatment	Length	Cost
Bicycle Projects from Countywide ATP[1]					
Couch Street	Sonoma Boulevard	Broadway Street	Class IV Separated Bikeway	0.89	$327,491
Curtola Parkway	Solano Avenue	Marin Street	Class IV Separated Bikeway	0.54	$199,670
Mare Island Way	Marin Street	Georgia Street	Class IV Separated Bikeway	0.46	$169,370
Solano Avenue	Curtola Parkway	Georgia Street	Class II Buffered Bicycle Lane	0.45	$140,615
Solano Avenue	Georgia Street	Tuolumne Street	Class IV Separated Bikeway	0.12	$46,191
Solano Avenue	Tuolumne Street	Florida Street	Class IV Separated Bikeway	0.33	$123,128
Tennessee Street	Mare Island Way	Sonoma Boulevard	Class IV Separated Bikeway	0.53	$197,179
Tennessee Street	Sonoma Boulevard	Mariposa Street	Class IV Separated Bikeway	1.27	$471,353
Total Cost (rounded)					**$1,675,000**
Pedestrian Projects from Countywide ATP[1]					
Mare Island Drive, Maine Street, Georgia Street			Sidewalk Gap Closure	0.81	$800,063
Alameda Street, Solano Avenue, Amador Street, 5th Street			Sidewalk Gap Closure	7.93	$7,850,438
Solano Avenue, Georgia Street, Benicia Road, Springs Road, Maple Avenue			Sidewalk Gap Closure	17.32	$17,150,250
Total Cost (rounded)					**$25,800,800**
Cost Allocated to In-Lieu Fee CIP (25% of 2020 cost estimate)					**$6,450,200**
Total In-Lieu Fee CIP Cost					**$8,125,200**

Note:
(1) Refer to Solano County ATP Appendix A – Vallejo for project details. All costs in 2020 dollars.
Source: Solano County Active Transportation Plan (2020).

IV. VMT Reduction with Fee Capital Improvement Program

To establish the VMT reduction potential of the projects in the In-Lieu Fee CIP, calculations were performed in accordance with methods presented in the *Quantification Methodology for the California Transportation Commission Active Transportation Program*, prepared by the California Air Resources Board.

To calculate effectiveness from bicycle facilities projects, the following formula was used, in accordance with the Existing Methodology put forth in the 2019 *Quantifying Reductions in Vehicle Miles Traveled from New Bike Paths, Lanes, and Cycle Tracks Summary Report* prepared by the California Air Resources Board. This formula includes several constants which are documented in the published *Quantification Methodology for the California Transportation Commission Active Transportation Program*.

Annual Auto VMT Reduced = (D) * (ADT) * (A + C) * (L)

Where:

D	=	Days of use per year (309 in Solano County, California)
ADT	=	Average daily vehicle traffic volumes on roadway parallel to facility
A	=	Adjustment Factor (based on facility type, length, and location)
C	=	Activity Center Credit (based on access to key destinations)
L	=	Average bicycle trip length (2.1 miles in the San Francisco Bay Area)

Reductions were calculated using daily traffic counts conducted in 2014 for the Vallejo General Plan Update and were calculated for each segment of each project. **Appendix A** contains the detailed calculations.

To calculate effectiveness from pedestrian facility projects, the methodology presented in the 2021 *Handbook for Quantifying Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, prepared by the California Air Pollution Control Officers Association (CAPCOA) was applied. The appendix contains the detailed calculations.

Annual Auto VMT Reduced = (C / B - 1) * (D)

Where:

B = Existing sidewalk length in study area (515 miles in Vallejo)

C = Sidewalk length in area after implementation of measure

D = Elasticity of household VMT with respect to sidewalk coverage (-0.05)

The VMT reduction estimates are shown in **Table 2**. The total annual VMT reduction associated with the projects is 721,900 VMT.

Table 2: VMT Reduction Estimates

Corridor Name	From	To	Treatment	Length	Annual VMT Reduction
Bicycle Projects from Countywide ATP					
Couch Street	Sonoma Boulevard	Broadway Street	Class IV Separated Bikeway	0.89	79,145
Curtola Parkway	Solano Avenue	Marin Street	Class IV Separated Bikeway	0.54	50,425
Mare Island Way	Marin Street	Georgia Street	Class IV Separated Bikeway	0.46	60,678
Solano Avenue	Curtola Parkway	Georgia Street	Class II Buffered Bicycle Lane	0.45	9,124
Solano Avenue	Georgia Street	Tuolumne Street	Class IV Separated Bikeway	0.12	14,050
Solano Avenue	Tuolumne Street	Florida Street	Class IV Separated Bikeway	0.33	14,050
Tennessee Street	Mare Island Way	Sonoma Boulevard	Class IV Separated Bikeway	0.53	24,063
Tennessee Street	Sonoma Boulevard	Mariposa Street	Class IV Separated Bikeway	1.27	56,761
Bicycle Project Annual VMT Reduction (rounded)					**308,300**
Pedestrian Projects from Countywide ATP					
Mare Island Drive, Maine Street, Georgia Street			Sidewalk Gap Closure	0.81	51,188
Alameda Street, Solano Ave, Amador Street, 5th Street			Sidewalk Gap Closure	7.93	502,268

Corridor Name	From	To	Treatment	Length	Annual VMT Reduction
Solano Ave, Georgia Street, Benicia Road, Springs Road, Maple Ave			Sidewalk Gap Closure	17.32	1,097,266
Pedestrian Project Annual VMT Reduction (25% of Pedestrian Projects) (rounded)					**412,700**
Total Annual VMT Reduction with Proposed In-Lieu Fee CIP					**721,900**

Source: Fehr & Peers, October 2022.

V. Fee Calculation

Fee Period

The In-Lieu Fee planning period is assumed to be 15 years. This period was selected to allow a reasonably foreseeable development projection, which in turn provides a reasonable basis for estimating the fee levels required to fund the Capital Improvement Program. It is assumed that the In-Lieu Fee would be updated regularly to account for changes in development forecasts and changes in the CIP project list. Thus, setting a longer time period would introduce unnecessary uncertainty.

Development Projections

The development forecast is based on discussions with City staff, current planning efforts for Mare Island and the Solano 360 site, and the current State Regional Housing Needs Allocation for Vallejo, all focused on a projection of development that is reasonably foreseeable over the next 15 years. The forecast includes the following components:

- Projects that have begun the City entitlement process
- Development of the Connolly Corridor neighborhood on Mare Island, including a 200-room hotel, multi-family housing, retail and office space
- Development of the additional housing units needed to meet the City's current RHNA allocation of 2,900 housing units, after accounting for the projects above
- Development of a 250-room hotel and 225,000 square feet of retail space on the Solano 360 site

The resulting development projections are shown in **Table 3**. The forecasts include a total of 2,900 housing units, 280,000 square feet of retail space, 61,000 square feet of office space, and three hotels.

Table 3: Development Projections

Development Project	Residential (DUs)			Non-Residential (KSF)				
	Single Family	Multi Family	Total	Retail	Office	Hotel[1]	Industrial[2]	Total
480 Fairgrounds Drive		127	127					0
Solano Ranch Mixed Use Project[2]		264	264		32.14	80		112.14
78 Springs Road		24	24					0
148 East Lincoln Road		21	21	10				10
Waterstone Phase2A/2B (Bordoni)	185		185					0
5180 Sonoma Boulevard.		418	418					0
4300 Sonoma Boulevard		288	288					0
1700 Fairgrounds Drive		23	23					0

Development Project	Residential (DUs)			Non-Residential (KSF)				
	Single Family	Multi Family	Total	Retail	Office	Hotel[1]	Industrial[2]	Total
900 Fairgrounds Drive (Solano 360)		500	500					
Solano 360[3]				225		200		425
Mare Island Connolly Corridor		373	373	45.073	28.6	160		234
Additional residential to meet RHNA		677	677					
Total	185	2,715	2,900	280.07	60.74	440	-	780.81

DU=dwelling unit; KSF=thousands of square feet
(1) Hotels are listed in thousands of square feet, using 0.8 KSF/room.
(2) No industrial development is currently anticipated in the 15-year VMT fee window.
(3) Assumes 50% build-out of the current Solano 360 plan for retail and full build-out of the planned hotel. Note that the 500 residential units on the Solano 360 site are included in the City's entitlement project list.
Source: City of Vallejo; Fehr & Peers, October 2022.

Development VMT Generation

Daily VMT rates for the anticipated new development were estimated using daily vehicle trip generation rates in the Institute of Transportation Engineers *Trip Generation* (11th Edition), and average trip lengths for Vallejo derived from the California Household Travel Survey trip lengths by trip purpose and National Cooperative Highway Research Program Reports 365 and 716, which describe trip purpose breakdowns for different land use types. The daily VMT rates are shown in **Table 4**.

Table 4: Daily VMT Rates by Use Type

ITE Code	Land Use	Unit	Daily Trip Generation	Average Trip Length (miles)	Daily VMT/Unit
Residential Uses					
215	Single-Family Attached	DU	7.2	9.7	69.8
221	Multi-Family (mid-rise)	DU	4.54	9.7	44.0
Office Uses					
710	General Office Building	KSF	10.84	11.8	128.2
Industrial Uses					
110	General Light Industrial	KSF	4.87	11.8	57.6
Retail Uses					
821	Shopping Plaza (40-150k, no supermarket)	KSF	67.52	9.0	605.7
Hotel					
310	Hotel	Rooms	7.99	9.0	71.7

Source: ITE *Trip Generation*, 11th Edition; NCHRP 365; NCHRP 716; California Household Travel Survey; Fehr & Peers, October 2022.

As shown in **Table 5**, the projected new development is estimated to generate 349,311 daily VMT.

Table 5: Development VMT Generation Estimate

ITE Code	Land Use	Unit	Amount of New Development	Daily VMT Rate	Daily VMT
Residential Uses					
215	Single-Family Attached	DU	185	69.8	12,921
221	Multi-Family (MR)	DU	2,715	44.0	119,568
Office Uses					
710	General Office Building	KSF	61	128.2	7,819
Industrial Uses					
110	General Light Industrial	KSF	0	57.6	-
Retail Uses					
821	Shopping Plaza	KSF	280	606.7	169,584
Hotel					
	Hotel	Rooms	550	71.7	39,419
Total					**349,311**

Source: Fehr & Peers, October 2022.

Dwelling Unit Equivalents

Dwelling unit equivalents are used to provide a normalized basis for allocating the In-Lieu Fee CIP cost across development types and calculate fees per development unit. **Table 6** shows the DUE calculations. The calculations incorporate the VMT generation rate of each development type. In traditional traffic impact fee calculations, which are generally based on peak hour vehicle trip generation, a factor representing the portion of trips that are considered "new" trips, i.e., trips not made by drivers passing by a land use or diverting from a primary trip to travel to/from a land use, is sometimes applied. These portions are derived from trip characteristics studies performed by the Institute of Transportation Engineers and San Diego Association of Governments. However, there is no known precedent for determining appropriate factors to represent this characteristic relative to VMT generation. Therefore, the "% New VMT" factors are currently set at 100% in this draft report.

The Adjusted Daily VMT rate is then compared to the single-family residential VMT rate, and the proportional adjusted VMT rate is the resulting DUE (the single-family residential VMT rate is set at 1.0).

Table 6: VMT-Based Dwelling Unit Equivalents

ITE Code	Land Use	Unit	Weekday VMT	% New VMT[1]	Adjusted New VMT	Dwelling Unit Equivalents
Residential Uses						
215	Single-Family Attached	DU	69.84	100%	69.84	1.00
221	Multi-Family (MR)	DU	44.04	100%	44.04	0.63
Office Uses						
710	General Office Building	KSF	128.18	100%	128.18	1.84
Industrial Uses						
110	General Light Industrial	KSF	57.59	100%	57.59	0.82
Retail Uses						
821	Shopping Plaza	KSF	605.66	100%	605.66	8.67
Hotel						
310	Hotel	Rooms	71.67	100%	71.67	1.03

1. For the purpose of this draft report, all VMT is considered new VMT, for all uses.
Source: Fehr & Peers, October 2022.

Fee Calculations

The In-Lieu Fees are calculated by allocating the total CIP cost across the total of all development units, incorporating the DUE factors to calculate the actual fee for each development type. The calculation is as follows:

Total Development Units = Development Amount X DUE Factor, summed for all development

- E = B X C

Single Family Residential Fee per DU = CIP Cost/All Development Units:

- G (Single-Family) = A / E (Total)

Multi-Family Residential Fee per DU= Single-Family Residential Fee X Multi-Family Residential DUE

- G (Multi-Family) = G (Single Family) X B (Multi-family)

Non-Residential Use Fees per Square Foot = Single-Family Residential Fee X Non-Residential Use DUE / 1,000:

- G (Non-Residential Use) = G (Single-Family) X B (Non-Residential Use)

Note that for these calculations, the hotel use is converted to thousands of square feet.

The resulting In-Lieu Fees are shown in **Table 7**.

Table 7: VMT-Based In-Lieu Fee Calculations

Item	Development DUEs				Fee (G)	Per Unit
	Use DUE (B)	Use Amount (DU or KSF) (C)	Total Development Units (E)	% of Total Development units (F)		
In-Lieu Fee CIP Cost (A)						
$8,125,200						
Land Uses						
SF Residential	1.00	185.00	185.00	4%	$1,662	DU
MF Residential	0.63	2715.00	1,711.96	35%	$1,048	DU
Retail	8.67	280.00	2,428.07	50%	$14.41	SF
Office	1.84	61.00	111.95	2%	$3.05	SF
Industrial	0.82	0.00	-	0%	$1.37	SF
Hotel[1]	1.03	440.00[1]	451.51	9%	$1.71	SF
Total DUEs			**4,888.49**			

(1) Hotel use converted to KSF at 0.8 KSF per room for fee calculation.
Source: Fehr & Peers, October 2022.

Economic Analysis

An evaluation of the effect of the In-Lieu Fee on development costs in Vallejo, considering other fees imposed on development, expected development project types and construction costs, was prepared by Economic and Planning Systems. This work is included in **Appendix B**. Note that the economic evaluation considered somewhat higher fees than those presented in Table 7, due to a higher CIP cost that was originally included in the Draft In-Lieu Fee for VMT Reduction. The CIP cost was subsequently reduced to remove certain projects that are already planned and funded.

VI. Monitoring and Reporting

In-lieu fees are not subject to the statutory monitoring and reporting requirements of AB 1600-compliant fees. However, to facilitate efficient implementation and administration of this In-Lieu Fee, it is recommended that an annual report documenting the following key data be prepared:

- Funds collected
- Funds spent, including breakdown by individual infrastructure project
- Fee escalation based on the relevant escalation source
- Changes to the project list due to completion of projects or removal of projects from the In-Lieu Fee CIP for other reasons

Appendix A:
VMT Reduction Estimate Calculations

Appendix A.1: Bicycle Facility VMT Reductions

Project	722A	727B	727C	725C	725D	725E	745A	745D
Facility Type	Class IV	Class IV	Class IV	Class II	Class IV	Class IV	Class IV	Class IV
Facility Length	0.89	0.54	0.46	0.45	0.12	0.33	0.53	1.27
Relevant Parallel Roadway	Sonoma Blvd	Curtola Parkway	Mare Island Way	Georgia St	Georgia St	Georgia St	Tennessee Street	Tennessee Street
Parallel Roadway ADT	18,000	17,400	13,800	7,400	7,400	7,400	17,200	14,200
Activity Centers Nearby	7 or more	7 or more	7 or more	Less than 3	Less than 3	Less than 3	Less than 3	4 to 6
D (Days of Use Per Year)	309	309	309	309	309	309	309	309
ADT	18,000	17,400	13,800	7,400	7,400	7,400	17,200	14,200
Adjustment Factor - Facility Type	1.54	1.54	1.54	1	1.54	1.54	1.54	1.54
Adjustment Factor - Length & Location	0.0014	0.0014	0.0014	0.0019	0.0019	0.0019	0.0014	0.002
Activity Center Credit	0.003	0.0015	0.003	0	0	0	0	0.002
Bike Trip Length	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Reduction	79,145	50,425	60,678	9,124	14,050	14,050	24,063	56,761

Destination Credits		
# of Destinations	**Within 1/2 mile**	**Within 1/4 mile**
Less than 3	0	0
3	0.0005	0.001
4 to 6	0.001	0.002
7 or more	0.0015	0.003

Growth Factor Adjustment	
Facility Type	**Adustment**
Class I	1.54
Class IV	1.54
Class II	1
Class II to Class IV Conversion	0.54

Active Transportation Adjustment Factors		
ADT	**Facility Length**	**Adj. Factor (Vallejo)**
< 12,000	1 mile or less	0.0019
< 12,000	1.1 to 2 miles	0.0029
< 12,000	More than 2 miles	0.0038
12,001 to 24,000	1 mile or less	0.0014
12,001 to 24,000	1.1 to 2 miles	0.002
12,001 to 24,000	More than 2 miles	0.0027
24,001 to 30,000	1 mile or less	0.001
24,001 to 30,000	1.1 to 2 miles	0.0014
24,001 to 30,000	More than 2 miles	0.0019

Appendix A.2 - Pedestrian Facility VMT Reductions

Current Citywide Sidewalk Miles	515
Current Citywide VMT (Annual)*	652,399,905

Project	SW Miles Added	% Increase	% Decrease in Citywide VMT	Total Decrease in Citywide VMT
VL.SG.12	0.81	0.2%	0.0078%	51,188
VL.SG.6	7.93	1.5%	0.0770%	502,268
VL.SG.7	17.32	3.4%	0.1682%	1,097,266

* Source: 2008 Vallejo Climate Action Plan

Appendix B:
Economic Analysis

DRAFT APPENDIX B: TECHNICAL MEMORANDUM

To: Ellen Poling, Senior Associate, Fehr & Peers

From: Teifion Rice-Evans and Luke Foelsch, Economic & Planning Systems, Inc. (EPS)

Subject: Vallejo VMT In-Lieu Fee Development Feasibility Analysis; EPS #211011

Date: September 2nd, 2022

The Economics of Land Use

Economic & Planning Systems, Inc. (EPS), as a subconsultant to Fehr & Peers, Inc. (F&P), has evaluated the potential effects of the proposed In-Lieu Fee on development feasibility in Vallejo. The purpose of this memorandum is to support City policymakers, staff, and F&P as they consider the adoption and setting of a new In-Lieu Fee for VMT reduction (In-Lieu Fee).

The EPS evaluation considers the extent to which the potential additional In-Lieu Fees on single-family, multifamily, office, and retail development are expected to substantially change the development economics of a "typical development." As with all such evaluations, it is important to recognize that this is a planning-level analysis that provides broad conclusions about typical development feasibility impacts but that: (1) not all projects are the same, so there will be individual examples where project-specific effects will be different from the overall conclusion provided; (2) any new or increased fee placed on new development will add to development costs and thereby create an additional hurdle to development even if modest in the broad picture of development economics; and, (3) broader economic and real estate market cycles will typically have a larger effect on development feasibility than fee adjustments.

Finally, it is important to recognize that the proposed VMT In-Lieu Fee is being developed due to CEQA requirements to consider VMT impacts. Because the In-Lieu Fee would only apply to projects that do not screen out, generate more VMT than the City average, and cannot fully rely on site-specific strategies, the number of projects paying the fee may be modest. Furthermore, without the In-Lieu Fee, it is possible that projects would be required to mitigate in other, potentially more costly ways. If that were the case, the In-Lieu Fee might be the more feasible mitigation option, even while increasing development costs.

Economic & Planning Systems, Inc.
1330 Broadway
Suite 450
Oakland, CA 94612
510 841 9190 tel

Oakland
Sacramento
Denver
Los Angeles

www.epsys.com

Summary of Findings

This section provides a summary of findings, reflecting the development economics analysis and fee comparisons provided below as well as broader real estate trends pertinent to the different land uses evaluated.

With the exception of the In-Lieu Fee on retail development, other types of new development in the City will generally be able to absorb the new In-Lieu Fees.

The new In-Lieu Fee will increase development costs on all development projects to which it applies. The scale of the increases and the general economics of development of single-family and multifamily development suggest that these types of projects could absorb these additional costs. For office development, while market conditions are more challenging and the fee increase is larger than for residential development, the In-Lieu Fee is still likely appropriate as proposed. For retail development, however, the fee increase is substantial. While the overall transportation fee in the City of Vallejo will now be similar to that for high-trip uses in Fairfield (e.g., fast food) and all retail in the City of Vacaville, this level of increase is expected to alter and constrain plans for retail development in the City.

<u>Single-Family Residential Development</u>: New single-family development in the City of Vallejo will generally be able to absorb the additional In-Lieu Fee.

At $2,009 per single-family unit, the In-Lieu Fee is expected to increase overall development impact fees on single-family development by 2.9 percent to about $71,600 per unit. It will also take the overall fee burden (fee as a percent of total current development value) from 10.5 percent to 10.8 percent. These are modest changes in terms of the overall economics of single-family detached development. The additional In-Lieu Fee still maintains Vallejo’s overall transportation fees on single-family development below those in the cities of Vacaville and Fairfield, with Vallejo’s aggregate citywide single-family development impact fees similar to those for both Vacaville and Fairfield.

The broader context for single-family development in Solano County and the City of Vallejo, where sites are available, is generally positive with relatively strong demand for single-family homes spurred in part by the pandemic and its enduring changes in housing preferences. Recent increases in interest rates will constrain this demand somewhat, though, in general, when not in recession, the economics for single-family development in the City are expected to remain strong.

Multifamily Residential Development: While the City has seen less multifamily development in the past and it is a less market-tested product than single-family, proposed new multifamily development should typically be able to absorb the modest additional In-Lieu Fee.

At $1,227 per multifamily unit, the In-Lieu fee is expected to increase overall development impact fees on multifamily development by 3.3 percent. It will also take the overall fee burden (fee as a percent of total current development value) from 8.6 percent to 8.8 percent. These are relatively modest changes in terms of the overall economics of multifamily development. Even with the addition of the In-Lieu Fee, the transportation-related fee burden (and the aggregate impact fee burden) on development in Vallejo is still below the levels charged in Vacaville and Fairfield.

As noted in the F&P Report, the 15-year development projection includes about 2,000 multifamily units in 10 identified projects along with an additional RHNA-associated 700 units. This is a substantial development pipeline reflecting developers' assessment of strong prospects for new multifamily development. While multifamily development can bring higher costs and more complex economics than single-family development, the modest In-Lieu Fee should not significantly change the prospects for this wave of new proposed development.

Office Development: The additional In-Lieu Fee, while moderate in scale, will add costs to a product type where the economics of development are already challenging. Nevertheless, the potential benefits for CEQA review/ mitigation might still make the fee manageable and relatively cost-effective.

At $3.69 per square foot, the additional In-Lieu Fee is expected to almost double the existing transportation fee and increase overall development impact fees on office development by about 20 percent. It will also take the overall fee burden (fee as a percent of total current development value) from 5.5 percent to 6.7 percent. These are larger increases than for residential development, though are relatively moderate in terms of the overall costs of office development.

The City of Vallejo has not historically been a large office market and the pandemic has also constrained demand for office space in many locations. The 15-year development projection for Vallejo also includes a relatively modest 60,000 square feet of office. That said, it is expected that there may be opportunities for additional medical and other office development in the future. Given that other dynamics will likely be more important to new office development (e.g., the need for build-to-suit medical office development by hospitals) and that the In-Lieu Fee may provide a CEQA streamlining benefit, an additional fee at the proposed fee level should still be manageable for most new office developments.

Retail Development: Due to the considerable VMT generated by retail uses, additional In-Lieu Fees are significant, increasing retail development costs substantially and likely constraining retail development.

At $17.42 per square foot, the additional fee will increase the overall transportation-related fees five-fold and will more than double the current aggregate development impact fees on new retail development. It will also take the overall fee burden (fee as a percent of total current development value) from 4.7 percent to 9.5 percent (a high cost-burden percentage for non-residential development). This level of increase in overall transportation fees does leave the Vallejo transportation and aggregate retail fees similar to those recently adopted in the City of Vacaville and similar to those for high-trip generation in retail (e.g., fast food) in the City of Fairfield. They are, however, substantially higher than the fees placed on general commercial/ retail uses in the City of Fairfield.

The high VMT In-Lieu Fees on retail development are a logical outcome of the substantial VMT generation by retail development. From a development feasibility basis, however, fee increases of this scale are likely to affect plans for future retail development in the City. With much of the retail sector continuing to contract in the wake of the continued shift to internet sales, substantial new fees will exacerbate challenges for many types of new retail development. If possible, a moderated and/or phased fee increase is recommended for the types of retail development the City is seeking to encourage.

Vallejo Development Impact Fee Overview

New development in the City of Vallejo is currently subject to fees charged by the City, the County, the Greater Vallejo Recreation District, the Vallejo Unified School District, and the Vallejo Flood & Wastewater District. Per the City of Vallejo Master Fee Schedule for Fiscal Year 2022-2023, the total development fees for the four land use types examined in this analysis are listed in **Table 1** below.

Table 1 Current Permit and Fee Levels in the City of Vallejo

Current Development Permit/Fee Items	Single-Family Per DU		Multifamily Per DU		Retail Per Sq. Ft.		Office Per Sq. Ft.	
City								
Transportation Impact Mitigation Fee	$8,480	*12%*	$4,768	*13%*	$4.00	*24%*	$4.00	*23%*
Excise Tax	$5,893	*8%*	$5,893	*16%*	$0.49	*3%*	$0.49	*3%*
Water Meter, Backflow, & Capacity Charges	$14,499	*21%*	$2,278	*6%*	$4.34	*26%*	$4.56	*26%*
Other Jurisdictions								
GVRD Park Fee	$15,631	*22%*	$10,710	*29%*	-		-	
Solano County Public Facilities Fees	$9,263	*13%*	$6,662	*18%*	$1.02	*6%*	$1.36	*8%*
Vallejo City Unified School District Fees[1]	$4,928	*7%*	$1,904	*5%*	$0.36	*2%*	$0.36	*2%*
Sanitary Sewer	$4,025	*6%*	$4,025	*11%*	$3.11	*18%*	$3.11	*18%*
Storm Drain[2]	$6,850	*10%*	$686	*2%*	$3.59	*21%*	$3.59	*21%*
Total Current Permit/Fee Burden	**$69,569**	***100%***	**$36,925**	***100%***	**$16.91**	***100%***	**$17.47**	***100%***

[1] Vallejo City Unified School District Fees are charged on a per-square-foot basis for residential uses. This analysis utilizes prototype unit sizes of 2,200 square feet for Single-Family residential and 850 square feet for Multifamily residential.

[2] The Vallejo Flood & Wastewater District's Storm Drain fee is charged to multifamily and commercial uses on a per-acre basis. The values shown in this table represent these per-acre fees translated to the specified per-DU or per-Sq.Ft. basis per the prototype developments utilized for this analysis.

Source: City of Vallejo Master Fee Schedule Fiscal Year 2022-2023; Economic & Planning Systems

As shown, the current development impact fee charged per single-family unit is about $70,000, per multifamily unit is $37,000, per square foot of retail is $17, and per square foot of office is $17.50. Of these total fee levels, the City's current Transportation Impact Mitigation Fee represents 12-13 percent of the total fee burden for residential developments and 23-24 percent of the total fee burden for retail and office developments.

Due to CEQA requirements, the City is now working with F&P to develop a two-pronged approach to reduce VMT in Vallejo. One part of this approach is the adoption of a VMT In-Lieu Fee that is described in the F&P Report. **Table 2** shows how the current development impact fee picture would change with the addition of the VMT In-Lieu fee.

Table 2 Existing and Proposed New Fees by Land Use

Item	Single-Family Per DU	Multifamily Per DU	Retail Per Sq. Ft.	Office Per Sq. Ft.
Proposed VMT Mitigation Fee	**$2,009**	**$1,227**	**$17.42**	**$3.69**
Total Permits/Fees before VMT Fee	$69,569	$36,925	$16.91	$17.47
Total Permits/Fees with VMT Fee	$71,578	$38,152	$34.33	$21.16
Percent Increase with Fee	*2.9%*	*3.3%*	*103.0%*	*21.1%*
Transportation Fee before VMT Fee	$8,480	$4,768	$4.00	$4.00
Transportation Fee with VMT Fee	$10,489	$5,995	$21.42	$7.69
Percent Increase with Fee	*23.7%*	*25.7%*	*435.5%*	*92.3%*

Source: City of Vallejo Master Fee Schedule Fiscal Year 2022-2023; Fehr & Peers; Economic & Planning Systems

Table 2 demonstrates how the proposed new VMT In-Lieu Fee would affect overall fee levels and the overall transportation fee component for developments in the City of Vallejo. The new fee would represent a modest increase to fee levels for residential uses but a more substantial increase for commercial uses. The fees on Single-Family units would increase by $2,009, which equates to a three percent increase in the total fee burden and a 24 percent increase in the transportation fee level. The fee level for Multifamily units would increase by $1,227, a three percent increase in the total fee amount and a 26 percent increase in the transportation fee amount.

The VMT In-Lieu fee would represent a much larger percentage increase to fees on Retail and Office developments. At $17.42 per square foot, the new total fee burden on Retail development would be 103 percent higher than its current level, and the transportation fee burden would be over 430 percent higher. For Office developments, the $3.69 per-square-foot VMT In-Lieu fee would constitute a 21 percent increase in the total fee level and a 92 percent increase in the current transportation fee component.

Development Impact Fee Comparisons

Comparisons with neighboring jurisdictions can help place potential fee increases in a regional/ market context. EPS compared both the City of Vallejo's current fee levels as well as fee levels with the additional VMT in-lieu fee with current fees in the City of Vacaville and Fairfield. The focus is on single-family, multifamily, and commercial/ general retail uses and a specified set of development parameters to get as close to an "apples-to-apples" comparison between cities as possible. Because the City of Fairfield differentiates its transportation fees between general commercial/ retail and high trip generation retail uses, two commercial examples were included for the City of Fairfield.

No plan area or processing fees were included in the comparisons. It is also worth noting that the City of Vacaville recently completed a 2022 comprehensive update to its full fee schedule, while the City of Fairfield recently evaluated and updated its new maximum transportation fees though may choose to charge fees below those maxima.

Table 3 shows the comparison for single-family development. As shown, the City of Vallejo's current aggregate fee per single-family unit is similar and slightly below those of the City of Vacaville and the City of Fairfield. With the inclusion of the new VMT in-lieu fee, the City of Vallejo's fees end up slightly above those in Fairfield and slightly below those in Vacaville. Comparing transportation fees alone, the City of Vallejo's transportation-related fees on single-family development remain well below those in the cities of Vacaville and Fairfield even after the addition of the VMT in-lieu fee.

Table 3 Single-Family Unit Fee Comparison

Citywide Impact Fees[1] (charged by City/County/Special Districts)	Vallejo Existing	Vallejo w/ VMT In-Lieu	Vacaville (Updated 2022)	Fairfield (Updated 2022)
Development Impact Fees per Unit				
Traffic Impact Fees/ In-Lieu Fees	$8,480	$10,489	$15,048	$15,079
Sewer Fees	$4,025	$4,025	$10,205	$6,281
Water Fees[2]	$14,499	$14,499	$12,863	$7,676
Drainage	$6,850	$6,850	$426	-
Parks[3]	$15,631	$15,631	$10,561	$11,053
Fire/Police	-	-	$2,250	-
Habitat/Greenbelt Preservation	-	-	$445	-
Other Facilities/General Fees/One-Time Taxes	$5,893	$5,893	$1,255	$9,978
Countywide Fees	$9,263	$9,263	$9,263	$9,263
School Fees	$4,928	$4,928	$9,792	$12,000
TOTAL FEES PER UNIT	**$69,569**	**$71,578**	**$72,108**	**$71,330**

* Prototype unit specifications are 2,200 square feet with a 450 square foot garage, four bedrooms, two bathrooms, and a 5.5 unit-per-acre density.
[1] These fees do not include area fees or planning/processing fees.
[2] Assumes either 0.75 inch meter or 1-inch meter for single family residential units.
[3] Some cities (Fairfield) also require parkland dedication or equivalent under Quimby Act specifications.

Source: City of Vallejo; City of Vacaville; City of Fairfield; Economic & Planning Systems

Table 4 shows the comparison for multifamily development. As shown, the current City of Vallejo's fees per unit are below those of the City of Vacaville and the City of Fairfield. With the inclusion of the new VMT in-lieu fee, the City of Vallejo's fees remain below those for Vacaville and Fairfield. Comparing transportation fees alone, the City of Vallejo's transportation-related fees on multifamily development remain well below those in the cities of Vacaville and Fairfield even after the addition of the VMT in-lieu fee.

Table 4 Multifamily Unit Fee Comparison

Citywide Impact Fees[1] (charged by City/County/Special Districts)	Vallejo Existing	Vallejo w/ VMT In-Lieu	Vacaville (Updated 2022)	Fairfield (Updated 2022)
Development Impact Fees per Unit				
Traffic	$4,768	$5,995	$8,513	$8,444
Sewer	$4,025	$4,025	$6,803	$3,781
Water[2]	$2,278	$2,278	$8,160	$8,870
Drainage	$686	$686	$162	-
Parks	$10,710	$10,710	$7,191	$5,943
Fire / Police	-	-	$1,532	-
Habitat / Greenbelt Preservation	-	-	$303	-
Other Facilities/ General Fees/One-Time Taxes	$5,893	$5,893	$855	$6,940
County-Wide Fees	$6,662	$6,662	$6,662	$6,662
School Fees	$1,904	$1,904	$3,468	$4,250
TOTAL FEES PER UNIT	**$36,925**	**$38,152**	**$43,649**	**$44,891**

* Prototype unit specifications are an 850-square foot unit within a 200-unit complex on a five-acre lot.
[1] These fees do not include area fees or planning/processing fees.
[2] Assumes one 2-inch meter for every 20 multifamily residential units.

Source: City of Vallejo; City of Vacaville; City of Fairfield; Economic & Planning Systems

Table 5 shows the comparison for commercial/ general retail development. As shown, the current City of Vallejo's total fee per building square foot is currently well below those in the City of Vacaville. Vallejo's fees are similar to those currently charged in the City of Fairfield on general retail, though are below those charged in the City of Fairfield for high trip generation (e.g., fast food restaurant establishments). With the inclusion of the new VMT in-lieu fee, the City of Vallejo's fees end up being somewhat above those in the City of Vacaville and those for high-trip generation retail in the City of Fairfield. They are also substantially above those for general retail in the City of Fairfield. Comparing transportation fees alone, the City of Vallejo's current transportation-related fees on commercial development are well below fees in other jurisdictions. The addition of the VMT in-lieu fee substantially increases the transportation fees in Vallejo and makes them similar to those in the City of Vacaville and those for high-trip generation uses in the City of Fairfield.

Table 5 Commercial / General Retail Square Foot Fee Comparison

Citywide Impact Fees[1] (charged by City/ County/Special Districts)	Vallejo Existing	Vallejo w/ VMT In-Lieu	Vacaville (Updated 2022)	Fairfield Gen. Commercial (Updated 2022)	Fairfield High-Trip Retail (Updated 2022)
Dev. Impact Fees per Sq. Ft.					
Traffic	$4.00	$21.42	$19.45	$7.51	$20.05
Sewer	$3.11	$3.11	$4.25	$0.55	$0.55
Water[2]	$4.34	$4.34	$5.00	$3.01	$3.01
Drainage	$3.59	$3.59	$0.35	-	-
Fire/Police	-	-	$0.56	-	-
Other Facilities/ General Fees/One-Time Taxes	$0.49	$0.49	$0.36	$6.13	$6.13
Countywide Fee	$1.02	$1.02	$1.02	$1.02	$1.02
School	$0.36	$0.36	$0.66	$0.61	$0.61
TOTAL FEES PER SQ. FT.	**$16.91**	**$34.33**	**$31.65**	**$18.83**	**$31.37**

* Prototype unit specifications are a 65,340-square foot building on a five-acre lot.
[1] These fees do not include area fees or planning/processing fees.
[2] Assumes two 2-inch meters.

Source: City of Vallejo; City of Vacaville; City of Fairfield; Economic & Planning Systems

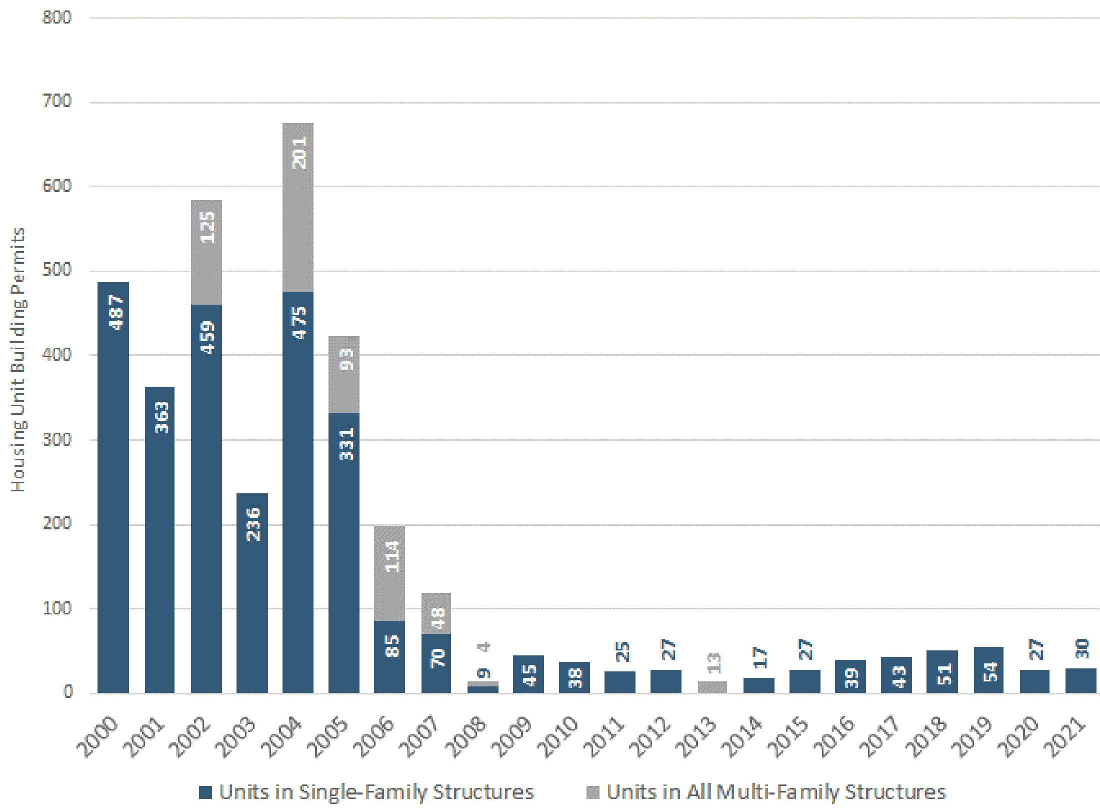
Residential Feasibility Analysis

This section examines how the proposed VMT In-Lieu fee might affect the feasibility of residential development in Vallejo – specifically single-family and multifamily use types.

Figure 1 shows residential building permit activity in Vallejo over the past twenty years. Historically, the City has attracted substantial single-family development activity subject to cycles in the real estate market as shown by the impact of the Great Recession. At the same time, the level of multifamily development has historically been limited. As demand for residential development has re-strengthened for single-family and multifamily uses, the City of Vallejo has opportunities to attract both types of development going forward.

Multifamily development appears poised to make a return to Vallejo, with 180 pipeline units according to CoStar Group data, and with another two thousand pipeline units currently under review per City staff. Hundreds more single-family units are also anticipated in the coming years, collectively signaling an influx of residential development on the horizon. The following section examines more focused feasibility considerations via prototype pro formas for both single-family and multifamily developments, and how the proposed VMT In-Lieu fee might affect their viability.

Figure 1 Vallejo Residential Building Permits by Type (2000-2021)



Source: SOCDS Permits Database; Economic & Planning Systems

Single-Family Development Feasibility

Applying market data, actual City fee levels, and standard market assumptions to a single-family development prototype, **Table 6** indicates the overall development economics and expected viability of a prototypical single-family development project in Vallejo. The prototype utilized is a 10-acre, 50-unit site with 2,750-square-foot homes selling at an average of $660,000 per unit. The pro forma combines these program assumptions with market data retrieved from industry-standard sources such as Redfin and Marshall & Swift to show the development economics of this product type.

Table 6 Vallejo Single-Family Development Feasibility Pro Forma

Item	Assumption		Total	Per Unit	Pct. Of Value
DEVELOPMENT PROGRAM ASSUMPTIONS[1]					
Site (Gross Square Feet)			435,600	8,712	N/A
Residential Units			50	N/A	N/A
Gross Building Area (Square Feet)	2,750	SF per Unit	137,500	2,750	N/A
Net Area (Square Feet)	80%	of GBA	110,000	2,200	N/A
Parking Spaces			*Integrated Garage*		
BUILDING VALUE					
Market Value[2]	**$300**	**per SF (Net Area)**	**$33,000,000**	**$660,000**	**N/A**
DEVELOPMENT COSTS, LAND VALUES, AND RETURN					
DIRECT COSTS					
Basic Site Work/ Lot Improvements[3]	$30,000	Per Lot	$1,500,000	$30,000	5%
Direct Construction Cost[4]	$138	Cost/SF (GBA)	$18,975,000	$379,500	58%
Direct Cost Total			$20,475,000	$409,500	62%
INDIRECT COSTS[3]					
Permits and Fees[5]	**$69,569**	**per Unit**	$3,478,446	$69,569	11%
Other Soft Costs[6]	19.0%	of Direct Const. Cost	$3,605,250	$72,105	11%
Indirect Cost Total			$7,083,696	$141,674	21%
TOTAL COSTS	**$200.43**	**per SF (GBA)**	**$27,558,696**	**$551,174**	**84%**
Developer Return Requirement	10.0%	of Market Value	$3,300,000	$66,000	10%
Residual Land Value	$15.57	per SF (GBA)	$2,141,305	$42,826	6%
	$214,000	per site acre			
TOTAL COST/RETURN	**$240.00**	**per SF (GBA)**	**$33,000,000**	**$660,000**	**100%**

[1] Program assumptions represent average values for a prototypical single-family development in Vallejo.
[2] Market value per square foot assumption per Redfin data. Represents averaged sale prices for both recently built homes in Vallejo as well as recently sold homes in Vallejo.
[3] EPS professional assumption congruent with other projects performed in nearby jurisdictions.
[4] Construction cost assumption via Marshall & Swift CoreLogic cost estimator for single-family residences built in Vallejo.
[5] Per **Table 1**.
[6] The Other Soft Costs item consists of Architecture and Engineering, Taxes and Insurance, Financing, Marketing/Leasing, and Developer Fee.

Source: Redfin; Marshall & Swift; Economic & Planning Systems

The market value is applied to the overall square footage to arrive at an estimate of total development value, $33 million for all 50 units in this example, from which the estimated total cost of development (~$27.6 million) is subtracted. A hurdle developer return requirement of 10 percent is applied, and the remaining difference between this and the total market value indicates the amount a developer could pay for land and still meet the hurdle return – also known as the Residual Land Value (RLV). In the **Table 6** example, the calculated RLV is $214,000 per acre. A positive residual land value indicates potential feasibility. Based on available information on potential land costs and recognizing uncertainties in development costs and other parameters, this pro forma, as a whole, indicates a feasible development project under current market conditions. It is important to note that this exercise utilizes a theoretical prototype development and actual results may vary given that actual development inputs will vary in reality and recent challenges posed by increasing costs, supply-chain issues, and labor issues can affect outcomes.

Table 7 summarizes the primary development metrics derived from the single-family pro forma shown in **Table 6**, and shows how the proposed VMT In-Lieu Fee, if charged to the same prototype project, would alter the development metrics.

Table 7 Single-Family Unit Development Metrics with Proposed Fee

Item	Per Unit Value	Per Unit Pct. Of Dev. Val.
Development Value	$660,000	*100%*
Current Levels		
Transportation Fee	$8,480	*1.3%*
Other Fees	$61,089	*9.3%*
Total Fee Burden	$69,569	*10.5%*
Other Costs	$547,605	*83.0%*
Overall Dev. Cost	$617,174	*93.5%*
Residual Land Value	$42,826	*6.5%*
Proposed Levels[1]		
Transportation Fee[2]	$10,489	*1.6%*
Other Fees	$61,089	*9.3%*
Total Fee Burden	$71,578	*10.8%*
Other Costs	$547,605	*83.0%*
Overall Dev. Cost	$619,183	*93.8%*
Residual Land Value	$40,817	*6.2%*

[1] Values shown here derived using the same pro forma shown in **Table 6** but with the proposed VMT In-Lieu Fee added to the costs.

[2] Represents the proposed $2,009 per-unit VMT In-Lieu Fee added to the current $8,480 per-unit transportation impact mitigation fee.

Source: Economic & Planning Systems

As shown above, under Vallejo's current fee levels, the prototype single-family development would be charged about $70,000 per unit in permits and fees, with $8,480 of that going toward the City's transportation impact mitigation fee. With the proposed VMT In-Lieu Fee of $2,009 added to this per-unit fee burden, the prototype single-family development would be charged $71,578 per unit, with $10,489 of that going toward transportation-related fees. As previously explained, the RLV represents the amount that a developer would be able to pay for the land given the value and cost estimates utilized. As **Table 7** demonstrates, the addition of the VMT In-Lieu Fee to this pro forma reduces the RLV per unit from $42,826 to $40,817 – put simply, an increase in the cost to develop the land will decrease the amount a developer would be willing to pay for the land with all other things being equal.

Because land prices can be "sticky" (i.e., not easy to move downwards), the developer may look to pass the additional fee costs on to the consumer by increasing the sale price of each single-family development within market-imposed constraints. By increasing the market value of the development, the added costs could be fully absorbed, thereby retaining the original RLV. By solving for this value utilizing the same pro forma approach, EPS estimates that in order to fully absorb the cost of the new VMT In-Lieu Fee and maintain the same land value, the sale price of each single-family unit would have to increase from $660,000 to $662,232, a 0.34 percent increase. This percentage increase in sale price is modest, further indicating the likely ability of the single-family residential product type to maintain feasibility even with the addition of the proposed VMT In-Lieu Fee.

Multifamily Development Feasibility

The general method utilized for calculating the development feasibility of a prototype multifamily residential product type is the same as the single-family method utilized previously, with a few differences in a few of the specific calculations. Applying market data, actual City fee levels, and industry-standard market assumptions to a prototype multifamily development program, **Table 8** indicates the development economics of a multifamily development project in Vallejo. The prototype utilized is a 2.5-acre, 150-unit site with 1,000-square-foot rental units renting at an average of $3.50 per square foot per month. The pro forma combines these program assumptions with market data retrieved from industry-standard sources such as CoStar Group and Marshall & Swift to provide an estimate of the feasibility of this product type.

The net operating income of the development is estimated by subtracting vacancies and operating expenses from the gross potential rent, with the resulting net operating income being divided by a 5.5 percent yield rate to arrive at a supportable development cost of $65 million for the whole development, or about $430,000 per unit. This indicates that a developer could invest this level of funding per unit and be expected to meet the hurdle 5.5 percent return/yield. Subtracting estimates of the direct and indirect costs (including fees) ($63 million) from the supportable development cost indicates the amount the developer could afford to pay for land (RLV) which is $1.7 million, or $681,000 per acre.

A positive residual land value indicates potential feasibility. Based on available information on potential land costs and recognizing uncertainties in development costs and other parameters, this pro forma, as a whole, indicates a feasible development project under current market conditions. It is important to note that this exercise utilizes a theoretical prototype development and actual results may vary given that actual development inputs will vary in reality and recent challenges posed by increasing costs, supply-chain issues, and labor issues can affect outcomes.

Table 8 Vallejo Multifamily Development Feasibility Pro Forma

Item	Assumption		Total	Per Unit	Pct. Of Value
DEVELOPMENT PROGRAM ASSUMPTIONS[1]					
Site (Gross Square Feet)			108,900	N/A	N/A
Residential Units			150	N/A	N/A
Gross Building Area (Square Feet)	1,000	SF per Unit	150,000	1,000	N/A
Rentable Area (Square Feet)	85%	of GBA	127,500	850	N/A
Total Parking Spaces	1.50	per Unit	225	1.5	N/A
Surface Parking Spaces	50%	of total parking	113		N/A
Podium Parking Spaces	50%	of total parking	113		N/A
BUILDING VALUE					
Gross Potential Rent (GPR)[2]	$3.50	per SF/Month	$5,355,000	$35,700	N/A
Losses to Vacancy[3]	5.0%	of GPR	-$267,750	-$1,785	N/A
Other Revenue (Parking)	$0	per Space/Month	$0	$0	N/A
Gross Revenue			$5,087,250	$33,915	N/A
Operating Expenses[3]	30%	of Gross Revenue	-$1,526,175	-$10,175	N/A
Net Operating Income (NOI)			$3,561,075	$23,741	N/A
Supportable Development Value	**5.50%**	**Yield Rate (on NOI)[3]**	**$64,746,818**	**$431,645**	**N/A**
DEVELOPMENT COSTS, LAND VALUES, AND RETURN					
DIRECT COSTS					
Basic Site Work[3]	$6.00	per site SF	$653,400	$4,356	1%
Building Direct Cost[4]	$281	Cost/SF (GBA)	$42,150,000	$281,000	65%
Surface Parking Cost[3]	*$5,000*	*per Space*	$562,500	$3,750	1%
Podium Parking Cost[3]	*$45,000*	*per Space*	$5,062,500	$33,750	8%
Total Parking Direct Cost	$25,000	per Space	$5,625,000	$37,500	9%
Direct Cost Total			$48,428,400	$360,356	83%
INDIRECT COSTS[3]					
Permits and Fees[5]	**$36,925**	**per Unit**	$5,538,805	$36,925	9%
Other Soft Costs[6]	19.0%	of Direct Costs	$9,077,250	$60,515	14%
Indirect Cost Total			$14,616,055	$97,440	23%
TOTAL COSTS	**$420.30**	**per SF (GBA)**	**$63,044,455**	**$420,296**	**97%**
Residual Land Value	$11.35	per SF (GBA)	$1,702,364	$11,349	3%
	$681,000	per site acre			
TOTAL COST/RETURN	**$431.65**	**per SF (GBA)**	**$64,746,818**	**$431,645**	**100%**

[1] Program assumptions represent average values for a prototypical multifamily development in Vallejo.

[2] Gross potential rent per square foot assumption per CoStar Group data for recently built market rate properties in the surrounding region.

[3] EPS professional assumption congruent with other projects performed in nearby jurisdictions.

[4] Construction cost assumption via Marshall & Swift CoreLogic cost estimator for multifamily residences built in Vallejo.

[5] Per **Table 1**.

[6] The Other Soft Costs item consists of Architecture and Engineering, Taxes and Insurance, Financing, Marketing/Leasing, and Developer Fee. Total is calculated based on direct construction costs (doesn't include site work).

Source: Redfin; Marshall & Swift; Economic & Planning Systems

Table 9 demonstrates that, under Vallejo's current fee levels, the prototype multifamily development would be charged about $37,000 per unit in development impact fees, with $4,768 of that going toward the City's transportation impact mitigation fee. With the proposed VMT In-Lieu Fee of $1,227 added to this per-unit fee, the prototype multifamily development would be charged $38,152 per unit, with $5,995 of that going toward transportation-related fees. **Table 9** further demonstrates that the addition of the VMT In-Lieu Fee to this pro forma reduces the RLV per unit from $11,349 to $10,122, an 11 percent reduction in value.

Table 9 Multifamily Unit Development Metrics with Proposed Fee

	Per Unit	
Item	Value	Pct. Of Dev. Val.
Development Value	$431,645	*100%*
Current Levels		
Transportation Fee	$4,768	*1.1%*
Other Fees	$32,157	*7.4%*
Total Fee Burden	$36,925	*8.6%*
Other Costs	$383,371	*88.8%*
Overall Dev. Cost	$420,296	*97.4%*
Residual Land Value	$11,349	*2.6%*
Proposed Levels[1]		
Transportation Fee[2]	$5,995	*1.4%*
Other Fees	$32,157	*7.4%*
Total Fee Burden	$38,152	*8.8%*
Other Costs	$383,371	*88.8%*
Overall Dev. Cost	$421,523	*97.7%*
Residual Land Value	$10,122	*2.3%*

[1] Values shown here derived using the same pro forma shown in **Table 8** but with the proposed VMT In-Lieu Fee added to the costs.

[2] Represents the proposed $1,227 per-unit VMT In-Lieu Fee added to the current $4,768 per-unit transportation impact mitigation fee.

Source: Economic & Planning Systems

In order for the value of the prototype multifamily development to absorb the added cost of the proposed VMT In-Lieu Fee and maintain the initial RLV of $11,349 per unit, EPS estimates the monthly rent per square foot would need to increase from $3.50 to $3.51. This increase of 0.28 percent, comparable to the increase calculated in the single-family section, similarly suggests the general feasibility of multifamily development in Vallejo would not be materially constrained by the introduction of the proposed VMT In-Lieu Fee.

Non-Residential Feasibility Analysis

This analysis focuses on two non-residential development types – retail and office/medical office. Over the past decade or so, the Vallejo market for these development types has been limited - since 2010, the overall office inventory in Vallejo has decreased by 57,000 square feet, and the retail inventory has decreased by 8,000 square feet (per CoStar Group data). Vallejo has seen new construction of these product types over this time period, however, the square footage delivered has been outpaced by the square footage demolished. This trend indicates that the feasibility challenges associated with these uses.

Broader market trends also do not bode well for retail development going forward, with brick-and-mortar retail demand experiencing a steady decline over the past few years with the proliferation of online shopping, further exacerbated by the effects of the COVID-19 pandemic. More specialized retail types, such as highway-oriented businesses (e.g., fast food) and big-box retailers, have shown more resiliency against the recent market downturn than their more traditional counterparts.

Given the variety in particular types and formats of retail and office developments, this analysis examines generalized product types for each to provide an overview of how the proposed VMT In-Lieu Fee might affect the feasibility of these developments in a broad sense. While the particular development economics and assumptions inherent to specialized retail or office types will vary from the more general product type utilized here, the generalized assumptions included here offer the most broadly applicable results.

In general, with regional construction costs continuing to increase and with the rent levels that are currently achievable for commercial real estate in Vallejo, the feasibility of these product types in this region is challenging. In general, for these generalized use types, it is difficult to see how potential revenues can covers development costs and provide a hurdle return on investment. The sections below place the scale of the In-Lieu Fees in the context of current fees and development values for these uses.

Retail Development Feasibility

As previously mentioned, general retail uses do not currently appear feasible in Vallejo, given achievable rents and construction costs. **Table 10** shows the value side of the pro forma, deriving a supportable development cost based on estimated net operating income. The prototype development mix utilized is intended to reflect an average retail product type and consists of a 10,500-square-foot building on a 0.69-acre lot. A monthly per-square-foot rent assumption of $2.50 (Triple Net) is applied to the overall square footage, from which vacancy losses and operating expenses are subtracted to arrive at an estimated net operating income. This value is divided by the yield rate to produce the estimated supportable development value of $3.8 million, or $363 per square foot.

Table 10 Vallejo Retail Development Value Pro Forma

Item	Assumption		Total	Per GBA
DEVELOPMENT PROGRAM ASSUMPTIONS[1]				
Site (Gross Square Feet)			30,000	N/A
Gross Building Area (Square Feet)	0.35	Floor Area Ratio (FAR)	10,500	N/A
Rentable Area (Square Feet)	95%	of GBA	9,975	N/A
Parking Spaces	4.0	per 1,000 SF	42	N/A
BUILDING VALUE				
Gross Potential Rent (NNN)[2]	$2.50	per SF/Month	$299,250	$28.50
Losses to Vacancy[3]	1.5%	of GPR	-$4,489	-$0.43
Gross Revenue			$294,761	$28.07
Operating Expenses[3]	3.0%	of Gross Revenue	-$8,843	-$0.84
Net Operating Income (NOI)			$285,918	$27.23
Supportable Development Value	**7.50%**	**Yield Rate (on NOI)[3]**	**$3,812,246**	**$363.07**

[1] Program assumptions represent average values for a prototypical retail development in the Vallejo area.
[2] Gross potential rent per square foot assumption based on CoStar Group data for recently built retail properties in the surrounding region.
[3] EPS professional assumption congruent with other projects performed in nearby jurisdictions.

Source: CoStar Group; Economic & Planning Systems

The value side of the pro forma support comparisons with the current transportation-related fees this development would be charged in addition to the proposed new fee. **Table 11** demonstrates this, comparing the existing and proposed fee levels with the development value per square foot derived in **Table 10**. The current fee level that would be charged to a retail development of this type ($16.91 per square foot) would represent 4.7 percent of the total development value. Adding the proposed VMT In-Lieu Fee would raise the total fee burden on this development to $34.33, equating to 9.5 percent of development value, more than double the percentage under current fee levels, and a high cost burden for non-residential development.

Table 11 Retail Sq. Ft. Development Metrics with Proposed Fee

Item	Per Sq. Ft. Value	Per Sq. Ft. Pct. Of Dev. Val.
Development Value	$363.07	*100%*
Current Levels		
Transportation Fee	$4.00	*1.1%*
Other Fees	$12.91	*3.6%*
Total Fee Burden	$16.91	*4.7%*
Proposed Levels		
Transportation Fee[1]	$21.42	*5.9%*
Other Fees	$12.91	*3.6%*
Total Fee Burden	$34.33	*9.5%*

[1] Represents the proposed $17.42 per-square-foot VMT In-Lieu Fee added to the current $4.00 per-square-foot transportation impact mitigation fee.

Source: Economic & Planning Systems

Utilizing the pro forma developed for this retail prototype, a sensitivity was run to determine how much the value would need to increase to absorb the addition of the VMT In-Lieu Fee cost without altering the RLV of the development. The initial monthly rent per square foot of $2.50 used in the pro forma for current conditions would need to increase to $2.62 for the development to fully absorb the proposed VMT In-Lieu Fee, a five percent increase. While not an exceedingly high increase, the five percent increase in rents required is far higher than the percent increase needed for the residential product types to absorb the proposed fee. With the feasibility of retail development already much more challenging than residential feasibility in Vallejo, the much higher relative burden of the proposed fee would add stress to retail's already unfavorable development economics.

Office/Medical Office Development Feasibility

Similar to retail uses, high construction costs and currently achievable rents in Vallejo point toward the infeasibility of office and medical office development, a conclusion bolstered by the paucity of this development type in the area over recent years. **Table 12** focuses on only the value side of the pro forma, deriving a supportable development value based on net operating income. The prototype development mix utilized is intended to reflect a standardized, general office/medical office product type, and consists of a 20,000-square-foot building on a 1.3-acre lot. A monthly per-square-foot rent assumption of $3.00 (Full Service) is applied to the overall square footage, from which vacancy losses and operating expenses are subtracted to arrive at an estimated net operating income. This value is divided by the yield rate to produce the estimated supportable development value of $6.3 million, or $316 per square foot.

Table 12 Vallejo Office/Medical Office Development Value Pro Forma

Item	Assumption		Total	Per GBA
DEVELOPMENT PROGRAM ASSUMPTIONS[1]				
Site (Square Feet)			57,142	N/A
Gross Building Area (Square Feet)	0.35	Floor Area Ratio (FAR)	20,000	N/A
Rentable Area (Square Feet)	90%	of GBA	18,000	N/A
Parking Spaces	4.0	per 1,000 SF	80	N/A
BUILDING VALUE				
Gross Potential Rent (FS)[2]	$3.00	per SF/Month	$647,990	$32.40
Losses to Vacancy[3]	2.5%	of GPR	-$16,200	-$0.81
Gross Revenue			$631,791	$31.59
Operating Expenses[3]	25.0%	of Gross Revenue	-$157,948	-$7.90
Net Operating Income (NOI)			$473,843	$23.69
Supportable Development Value	**7.5%**	**Yield Rate (on NOI)[3]**	**$6,317,905**	**$315.90**

[1] Program assumptions represent average values for a prototypical office/medical office development in the Vallejo area.
[2] Gross potential rent per square foot assumption based on CoStar Group data for recently built office properties in the surrounding region.
[3] EPS professional assumption congruent with other projects performed in nearby jurisdictions.

Source: CoStar Group; Economic & Planning Systems

The estimated supportable development value per square foot found above is carried over into **Table 13**, which compares the current and proposed fee levels. The current fee level for an office/medical office development of this type ($17.47 per square foot) would represent 5.5 percent of the total development value. Adding the proposed VMT In-Lieu Fee would raise the total fee burden on this development to $21.16, equating to 6.7 percent of development value, a modest increase over current levels.

Table 33 Office/Medical Office Sq. Ft. Development Metrics with Proposed Fee

Item	Per Sq. Ft. Value	Per Sq. Ft. Pct. Of Dev. Val.
Development Value	$315.90	*100%*
Current Levels		
Transportation Fee	$4.00	*1.3%*
Other Fees	$13.47	*4.3%*
Total Fee Burden	$17.47	*5.5%*
Proposed Levels		
Transportation Fee[1]	$7.69	*2.4%*
Other Fees	$13.47	*4.3%*
Total Fee Burden	$21.16	*6.7%*

[1] Represents the proposed $3.69 per-square-foot VMT In-Lieu Fee added to the current $4.00 per-square-foot transportation impact mitigation fee.

Source: Economic & Planning Systems

As with the previous retail section, a sensitivity was run to determine how much the value of the office/medical office prototype would need to increase to absorb the addition of the VMT In-Lieu Fee cost without altering the RLV of the development. The initial monthly rent per square foot of $3.00 used in the pro forma for current conditions would need to increase to $3.04 for the development to fully absorb the proposed VMT In-Lieu Fee, a 1.2 percent increase. While this increase is still slightly higher than the ones calculated for the residential product types, it is significantly lower than its analog calculated for the retail use type. The resulting conclusion for this fee level increase is more mixed, representing a modest increase on a use with challenging development economics. Ultimately the viable of the fee level may depend on the relative costs of mitigation VMT impacts through other approaches.